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NOTES ON GEOGRAPHIC DISTRIBUTION

Pisces, Cyprinodontiformes, Rivulidae, *Austrolebias vazferreirai* (Berkenkamp, Etzel, Reichert and Salvia, 1994): New species record from Brazil

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ABSTRACT: The present note records for the first time the annual fish *Austrolebias vazferreirai* (Berkenkamp, Etzel, Reichert and Salvia) from state of Rio Grande do Sul, southern Brazil.

The genus *Austrolebias* Costa comprises 40 species of annual fishes of the tribe Cynolebiasini (Costa 2008). In Brazil so far there are 19 species recorded, 18 of which occur in Rio Grande do Sul (Costa 2006; Ferrer *et al.* 2008): *A. luteoflammulatus* (Vaz-Ferreira, Sierra-de-Soriano and Scaglia-de-Paulete, 1964), *A. varzeae* Costa, Reis and Behr, 2004, *A. alexandri* (Castello and Lopez, 1974), *A. cyaneus* (Amato, 1987), *A. ibicuiensis* Costa, 1999, *A. juanlangi* Costa, Cheffe, Salvia and Litz, 2006, *A. litzi* Costa, 2006, *A. paucisquama* Ferrer, Malabarba and Costa, 2008, *A. periodicus* Costa, 1999, *A. adloffi* (Ahl, 1922), *A. charrua* Costa and Cheffe, 2001, *A. minuano* Costa and Cheffe, 2001, *A. nachtigalli* Costa and Cheffe, 2006, *A. nigrofasciatus* Costa and Cheffe, 2001, *A. univentripinnis* Costa and Cheffe, 2005, *A. jaegari* Costa and Cheffe, 2002, *A. prognathus* (Amato, 1986) and *A. wolterstorffi* (Ahl,1924).

Austrolebias vazferreirai (Berkenkamp, Etzel, Reichert and Salvia, 1994), is distinguished from all other species of the *A. robustus* group because of the following combination of features: dorsal-fin origin in males on the vertical between the base of the 1st or 3rd anal-fin ray, on females just preceding the anal-fin; scales in longitudinal series 30-35; vertebrae 29-32; flank gray, often with light vertical lines in males; spots on flank and no large spot at the end of the caudal peduncle in females (Costa 2006). This species was re-described by Costa (2006).

The known distribution of this species is restricted to Uruguay in the upper Negro river drainage, Uruguay river basin, and upper Taquarí river drainage, Mirim lagoon basin (Costa 2006). The examination of the Ichthyologic Collection Morevy Cheffe (CIMC) of GEEPAA-RS resulted in the identification of *A. vazferreirai* for the municipality of Bagé. This is the first record of this species in Rio Grande do Sul and Brazil. The lot CIMC 9511 is composed of a sub-adult male, with 37.5 mm SL, and an adult female, with 44.8 mm SL (Figure 1). Specimens were collected with hand net on 28 August 2000, in a temporary pond marginal to BR 153 (Highway Bagé / Aceguá), about 5 km north of the Passo do Valente (31°25' S, 54°08' W), Negro river drainage, in the Uruguay river basin (Figure 2).

This species was found in a shallow pond (average depth 30 cm), about 160 m a.s.l., with dense aquatic vegetation and fully exposed to sunlight, co-occurring with an abundant population of *A. periodicus* (CIMC 17346), that is considered endangered (Reis *et al.* 2003; Rosa and Lima 2008) and who recently had their range distribution extended in Rio Grande do Sul by Volcan *et al.* (2010a). This recording of the population of *A. periodicus* widens its distribution, being also the first record for Bagé.

Besides the occurrence of *A. vazferreirai*, their co-occurrence with an endangered species (*A. periodicus*) adds greater value to conservation of the wetland where these species were recorded. The occurrence of *A. vazferreirai* in Brazil indicates special care with the conservation in its wetland area, since only one population, represented by few individuals was recorded in this country. Rivulidae

FIGURE 1. Male and female of *A. vazferreirai* (CIMC 9511) recorded in the floodplains of Negro river drainage, municipality of Bagé, Rio Grande do Sul, southern Brazil.

is considered the family of freshwater fishes most endangered in Brazil (Rosa and Lima 2008), and in Rio Grande do Sul, where more than 90 % of wetlands were lost due to agriculture and other anthropogenic activities (Maltchik *et al.* 2010), the annual killifishes represent about 40 % of all freshwater fish threatened of extinction (Reis *et al.* 2003). The fact that the region of Bagé is widely exploited for rice cultivation, cattle raising (IBGE 2010), and recently speculated for ventures like dams and exotic forestry projects, aggravates the threat to populations of *A. vazferreirai.* Therefore, besides protecting the occurrence area, the search for new populations and the inclusion of this species in lists of fishes at risk of extinction, as recommended for other *Austrolebias* species (Volcan *et al.* 2009; 2010b), would be important to contribute with conservation of the species.

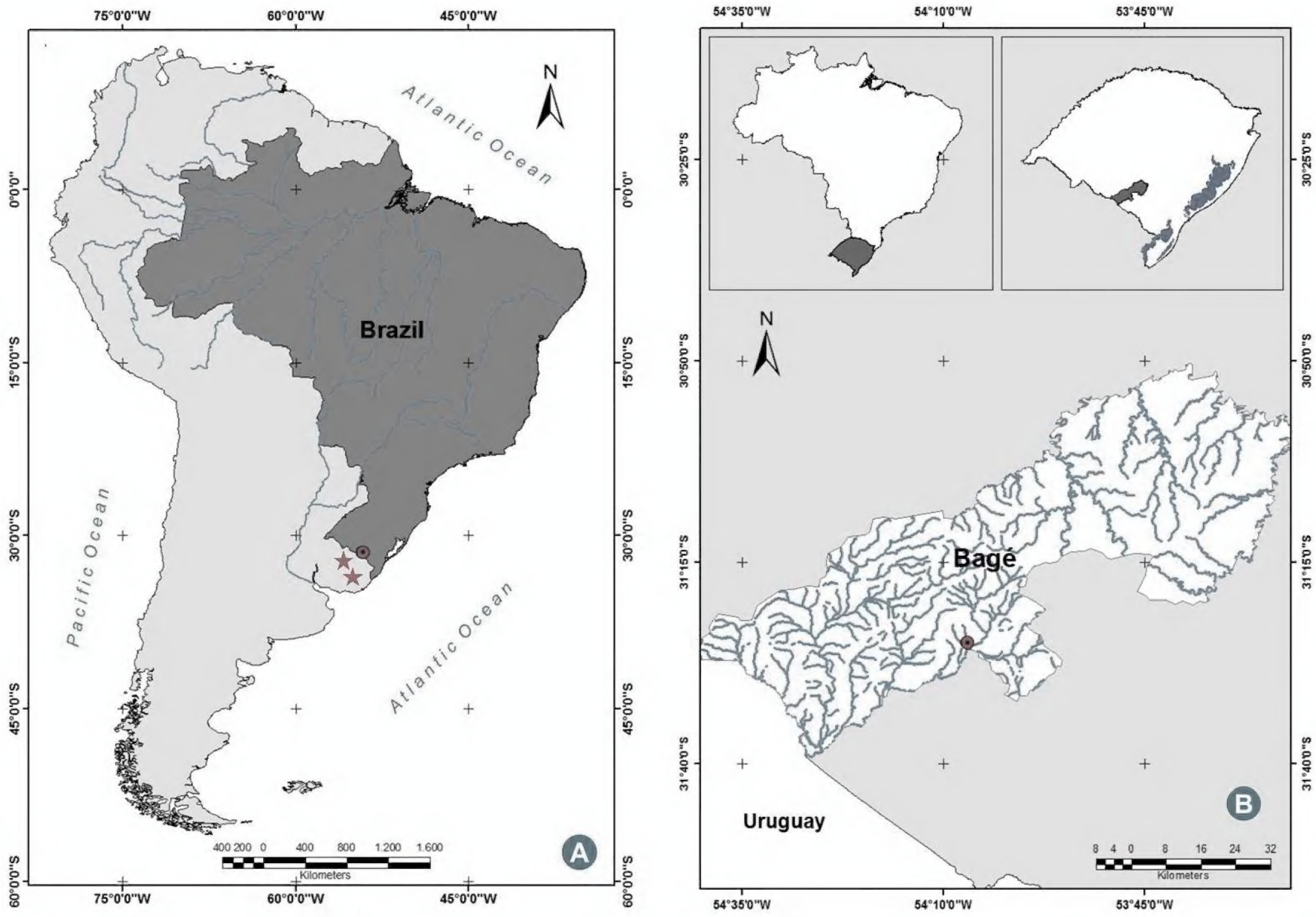

FIGURE 2. (A) Previous known distribution of *A. vazferreirai* including Negro and Taquarí River basin in Uruguay (star), and the current record in Brazil (circle). (B) Map detailing the new occurrence of *A. vazferreirai* in municipality of Bagé, Rio Grande do Sul, southern Brazil. Author: H.P.B. Neto.

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